



# Green Power + HP

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# Agenda

- About HP
- Overall energy program
- Wind Purchase and benefits
- Why HP chooses to be involved in GW reduction & Wind Energy
- Benefits

# About HP

- Focus: Helping people apply technology in a meaningful way to their businesses, personal lives, and community.
- Strategy: Offer products, services, and solutions that are **high tech, low cost, and deliver the best customer experience.**
- \$80B in revenue.
- 150,000 employees in 170 countries.
- Annual R&D budget of \$4B.
- Average of 11 patents a day worldwide.

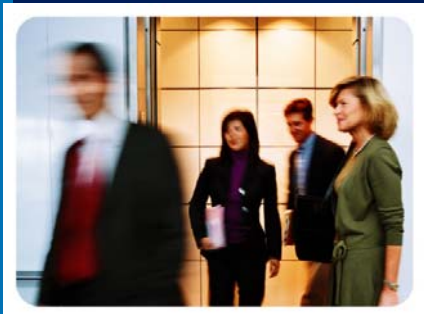
# About HP Corvallis

- 2,000,000 Sq ft of clean room, office, and product development
- 3,000 employees
- Manufactures the latest model of the ink jet head



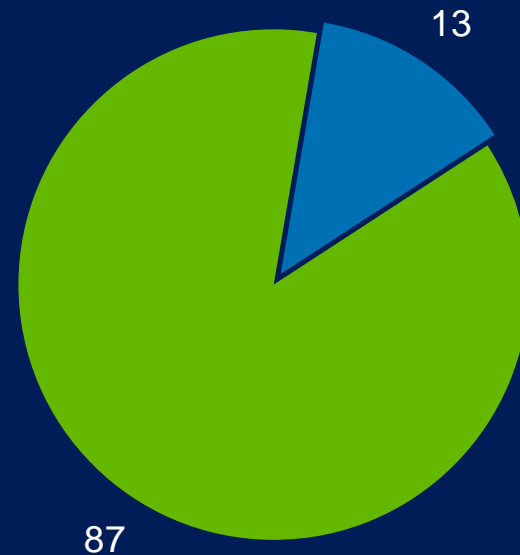
# Global Warming & Sustainability

- HP believes that companies, countries, governments, and people need to cooperate to address climate change.
- HP is committed to Sustainable Business Practice.



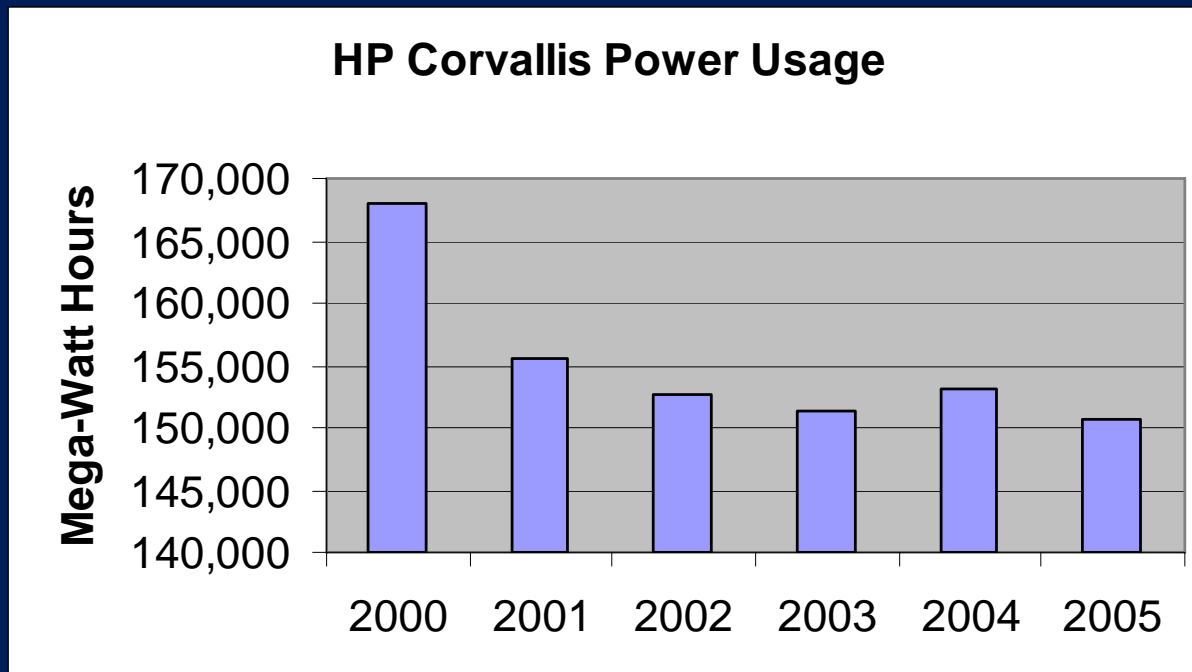
# HP GHG Sources

- Data has been collected to determine primary sources.
- Two ways to mitigate:
  - Use less energy
  - Use a clean energy source
- Green = GHG from Electricity
- Blue = Site GHG emissions, includes PFC's and natural gas.



# Corvallis Energy Program

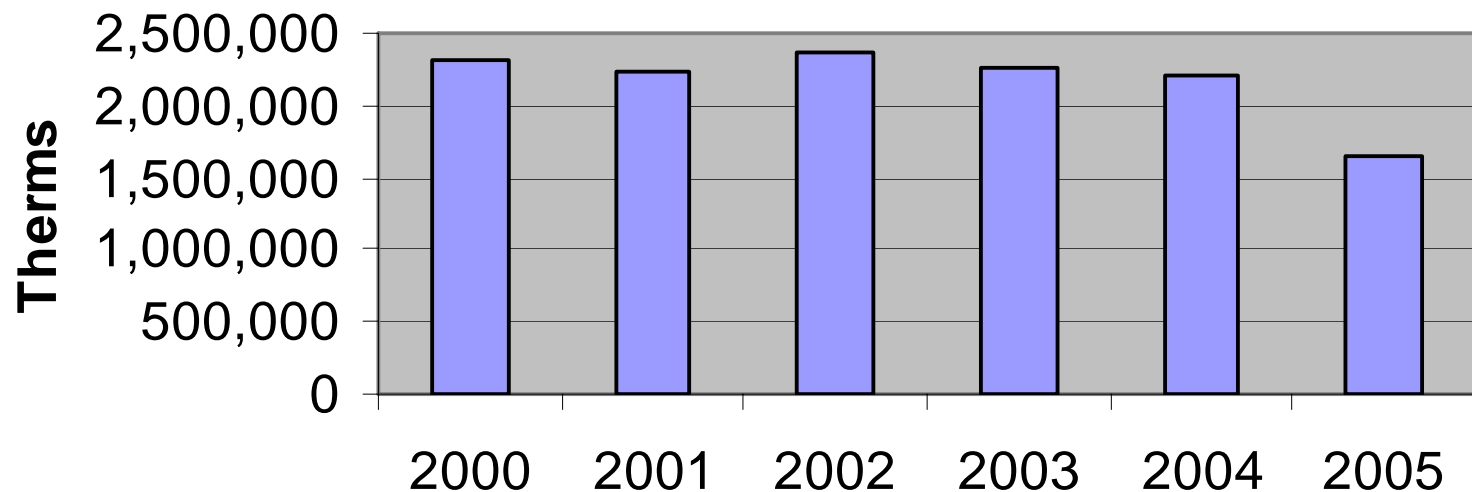
- Corvallis is 12% of HP America's Electricity use.
- 10% electric energy reduction since 2000
- Increased site clean room capacity and lower particle count.



# Corvallis Energy Program

- Corvallis is 29% of HP America's natural gas use.
- 28% gas reduction since 2000

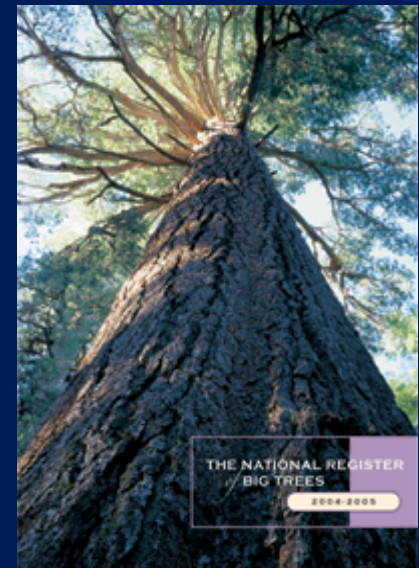
**HP Corvallis Natural Gas Usage**





# Corvallis Conservation Benefits

- Compared to 2000:
  - 13,800,000 kWh conserved per year
  - 100,000 therms of gas conserved per year
- Per year energy savings are about \$850k per year.
- Total environmental benefit equivalent:
  - 21,095 tons of CO<sub>2</sub> from a coal fired power plant
  - Power 1,409 homes
  - 6,098 acres of trees



# Wind

- Wind power is purchased at 5 of HP US plant sites.
- In 2005 HP Corvallis increased it's purchase from 1,600 to 4,300 MWh, making HP the biggest purchaser in PacifiCorp's 6 state service area.



# HP Green Power Purchases

City	Mwh/Yr
Palo Alto, CA	948
Vancouver, WA	583
Corvallis, OR	4,259
Boise, ID	2,357
Fort Collins, CO	510
<b>TOTAL</b>	<b>8,657</b>

# Economic Benefits of Wind Power Purchase



- The price of natural gas has doubled over the past year and increased five-fold since 1998
- It is possible to lock in power fuel costs for 10+ years.
- Economics: What HP pays for wind power in Colorado is LESS than what we expect to pay for regular power in San Diego and San Francisco Area in 2006.
- AMD in Texas just announced that is buying 100% wind power for their factory. The price of wind power is close to the price of regular power, but now it's locked in for 10 years!

# Relationship Benefits of Wind Power Purchase



- Helps to achieve HPs goals of sustainable business practice
- Positive employee and community relations
- “For having been one of the easier decisions I've made in the last 3 years, it sure is getting great exposure for our site.” – HP Facilities Manager





HP Environmentalism



# Why HP is involved in Sustainability

- History of Environmentalism
  - Uses ‘Product Stewards’ to minimize environmental impact .
    - Energy Efficiency
    - Design for recyclability
    - Materials Innovation
  - One of the first to be ISO 14001 certified in all of its manufacturing operations.
  - One of the first to offer a recycling program for toner and inkjet cartridges.
  - HP manages its supply chain for environmental performance.
- Business Drivers

# Business Drivers

- Our customers ask for / expect HP's involvement
  - HP is the 10<sup>th</sup> most respected company in the world
  - Criteria for doing business with them – Selection criteria for \$6B in business.
  - Customer experience & marketing
- Socially Responsible Mutual Funds.
  - Dow Jones Sustainability Index
- Saving energy saves operating expense
  - Energy savings equates to profit, profits equate to Gross Revenue.



# Energy Savings Equivalents

Profit Margin	Multiplier to equate to Gross Revenue	Gross Revenue Equiv. for \$10k Energy Saving
2 %	x 50	\$ 500 k
5 %	X 20	\$ 200 k
10 %	X10	\$ 100 k
15 %	X 7	\$ 70 k
20 %	X 5	\$ 50 k
33%	X 3	\$ 30 k

# Success / Benefits

- Achieving HP conservation goals
- Saving money
- Better control of site systems
- Personal gratification



# Summary

- One of the most effective means to reduce GHG is through energy conservation and alternate energy sources.
- There are solid business drivers, including good economic pay back, to conserve resources and use alternate energy sources

